# Industry Advisory Board Meeting - May 5, 2025

## Executive Summary

**Leo McGonagle provided an update on the GEL program**

We're completing a strong recruitment season with a record number of applications for GEL 1 and GEL 2.

Our admit rate for GEL 1s was 74%. (Note that 24% of School of Engineering sophomores applied to GEL 1.) Our admit rate for GEL 2s was 76%.

Current enrollment is 98 GEL 1 students (started with 142 in fall from 196 offers) and 35 GEL 2 students. Most of the attrition among GEL 1s is because they're overcommitted.

We're offering the Design-Thinking & Innovation course only in the fall but with 2 sections because we're noticing many students who plan to take it in the spring don't end up taking it. Our Camp Cody project engineering course will be 6 units next year with new instructor, Bryan Moser. We've added a spring version of that course. (The spring course is primarily for senior GEL1s as well as some non-GELs.)

In terms of Impactships, we have a student at Apple right now in an ongoing Impactship since February. We've had 3 accepted at Northrop Grumman. Executive sponsorship and supervisor/mentor understanding of their role continue to be a challenge: primarily because there's turnover in the in the organizations.

We continue to share and exchange best practices with other universities: a faculty member from University of Birmingham in the UK visited. We're about to meet with guests from the University of New South Wales and Australia. We're excited about our new website and program logo and proud of staff continuity over many years. This team is running on a lot of cylinders.

**Tony Hu provided an update on the GradEL program**

Our North Star continues to be our 3 pillars: (1) Develop leadership skills through theory and experiential learning. (2) Focus leadership skills on understanding and creating impact from technology. (3) Practice and further develop leadership skills in a real-world environment.

We're up to 144 students in our courses this year and 47 certificates. Potential for a lot more. We're touching a small percentage of our 3,300 engineering grad students. 200+ alums have our certificate, about 36% are in leadership roles, and 70% in technical roles.

We're increasing our course offerings, reducing non-GradEL electives, and updating our certificate to increase the number of capabilities that students are learning. This strengthens our program.

Core GradEL courses:

- Original courses - Leading Creative Teams, Negotiation & Influence Skills for Technical Leaders, and Multi-Stakeholder Negotiation for Technical Leaders.
- New for Fall 2024 - Innovating for Improvement.
- Spring 2025 - Leadership - People, Products, Projects (new permanent subject) and Unpacking Impact: Transforming Research into Real-World Solutions (petitioning for permanent subject)
- Future exploration - Persuasive Communication for Engineering Leaders and Engineering Leadership in the Age of AI.

We held 5 workshops, including Joel Schindall's dynamic case study on Globalstar, and one by Linda DuCharme, former President ExxonMobil Tech & Eng Co, who gave a passionate and interactive workshop on 100-Day Plans for Any New Job: A Leader's Perspective.

We're graduating our initial cohort of Engineering Residents. Four students received return offers to Northrop Grumman and Apple. Fifth student finishing later and expecting return offer. A lot of great feedback from both sides.

**Heather Kispert Hagerty provided an update on GradEL fundraising**

We've raised just over $3.1 million. Long term, it's important for GradEL to establish develop a base of donors, best done through the annual fund. This year, we featured GradEL in the 24-Hour Challenge, bringing in 56 new donors, which is very good for a program's first time and helps build the GradEL alumni base. Shorter term, we're continuing to work on our fundraising efforts for larger gift conversations, sharpening our conversations about what is the ROI for companies, and taking a look at a few of MIT's Presidential initiatives.

**Eilleen Milligan provided an update on Subcommittee 1: Understanding Workforce and Workplace Change**

Focus is on what the latest generation of students needs to thrive when they start work. We have two goals: (1) Gain insight into the ways today's graduates' compare to those from previous generations in terms of their readiness to handle the challenges of engineering work in today's world. (2) Ensure that future GEL/GradEL graduates are prepared and will succeed in a rapidly changing engineering landscape.

We started with a brainstorming activity that asked the subcommittee to gather input from their frontline company personnel to answer the question: "What are the top 3 challenges keeping you up at night regarding hiring, onboarding and training today's graduates?"

They identified nine initial themes:

1. Retention challenges (students lack patience, know their worth from online pay data)
2. Adapting to hybrid work and remote collaboration
3. Communication skills and storytelling with data
4. Cross-disciplinary skills for startups/small companies

5. Project skills and self-completion ability
6. Balancing work-life priorities with growth expectations
7. Soft skills and behavioral engagement
8. Understanding business operations
9. Workplace technical skills

From those themes we narrowed down to four themes or common pain points:

- Communication Skills → *Persuasive Technical Communication*
- Soft Skills → *Habits of an Effective Colleague*
- Project Skills → *Resilient Project Leadership*
- Importance of Cross-Disciplinary Skills + Understanding the Bigger Picture → *Interdisciplinary Participation and Facilitation*

We explored current and proposed initiatives to our programs to address those four areas. Next, we'll continue seeking input from the subcommittee on the refined plans for enacting near-term proposals. Given the educational themes identified, we're asking if any other IAB members would like to be involved.

**Sidebar: Discussion on "brand identity" of MIT students**

One of the key things that came out of this subcommittee brainstorming is: what is the identity of an MIT grad? Students from other schools tend to have known reputations: Stanford students tend to by innovation-driven, more interdisciplinary thinkers, and an entrepreneur mindset. Berkeley students tend to be a little bit more rooted in activism. Northeastern students, because of the co-op program, tend to be more career focused, adaptable, connected to industry.

When we think about MIT students, they're technically brilliant, intensely curious, but doesn't seem to be a brand around this. Bernie Gordon would ask, Why does MIT, the most technically renowned university in the world, output really great technical engineers, but very few of them go on to be leaders or captains of industry.

We know companies hire GEL graduates because they see something special in them. Same with Engineering Residents, there's something special there. So how do we take what's special and try to make that intentionally back into the program?

This discussion could continue as part of the 2 existing subcommittees. Or a new subcommittee incubates some ideas and then brings them to the full IAB for more discussion.

**Monica Pheiffer provided an update on Subcommittee 2: Strengthening Our Enhanced Internship Programs**

Initial goals focused on leveraging our IAB members and their connections to identify actionable recommendations to strengthen the GEL Impactship and GradEL Engineering Residency programs. Specifically, how can we improve and sustain our partnerships with our current host companies and use that information to also help us establish and sustain new partnerships.

We identified key challenges:

- People / organization changes without transferring responsibility or knowledge of our program
- Funding for GradEL students to stay enrolled at MIT while away on internship during semester
- Host company hiring manager readiness to take on high potential intern, understanding difference from typical internship
- Coordinating / aligning start time and duration

We collected about 70 insights, synthesized those insights into 11 themes based on what is important and feasible for this subcommittee to focus on first. One theme stood out: Defining what "differentiation" means for GradEL Engineering Residency and GEL Impactship as compared to traditional student internship experiences.

We generated 28 Ideas on this theme: 9 applicable to GEL Impactship, 10 applicable to GradEL Residency, 9 applicable to both.

10 ideas were identified as low-hanging fruit for GEL / GradEL internal teams to immediately pilot for the next available round of enhanced internships: (1) Get more info from hiring company. (2) Intern peer prep. (3) Increase clarity for students about pay and timeline. (4) More variety and flexibility in roles. (5) Be nominated to be a GEL intern. (6) Provide talking points for students. (7) Final presentations for GEL Impactships. (8) Require grad students to complete LCT and plan for certificate. (9) Standard approval process for Residency final presentations. (10) Required reflection for Residents.

Remaining 18 ideas will be reviewed and prioritized with subcommittee and leaders of internship programs.

At next IAB we intend to provide updates on: improving and sustaining our partnerships with host companies, collecting data on "what would need to be true" both from existing partners and non-partners, and action plans that can be leveraged by GEL/GradEL for existing and future partnerships.

**Sidebar: Discussion on values, attitudes MIT students bring to internships**

If our students have a different set of values than a typical student, less focused on personal gratification and more focused on helping the team accomplish something, that will turn out to be more important to the employers than any of the other skills we teach them. You want students to have some self-interest but focused on the success of the team.

Example: Instead of a student going to a company and waiting to be assigned something, would love to have students say, I've been looking at your company or your business and I have an idea for you. That can be a huge game changer. Instead of expecting to be given something awesome to do, go in with an idea, recommend a solution to a problem. That's effective, never going to be punished for coming up with an idea.

###